

## Claims

- 1 1. A method comprising  
2 receiving an electronic document represented by serial data that contains content  
3 of the document and defines an order in which respective portions of the content are to be  
4 performed,  
5 analyzing the serial data of the electronic document, and  
6 generating reorganization information for use in delivering the portions of the  
7 content, the reorganization information enabling performance in an order different from  
8 the order defined by the serial data.
- 1 2. The method of claim 1 in which the serial data representing the electronic  
2 document is expressed in a markup language.
- 1 3. The method of claim 2 in which the mark-up language comprises a hypertext  
2 markup language.
- 1 4. The method of claim 2 in which the serial data representing the electronic  
2 document is expressed in an electronic mail format.
- 1 5. The method of claim 4 in which the electronic mail format includes a header and  
2 a main body.
- 1 6. The method of claim 4 in which the analyzing includes determining the start of  
2 the main body.
- 1 7. The method of claim 3 in which the hypertext markup language comprises  
2 HTML.

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8. The method of claim 3 in which the markup language comprises PDF, postscript, SGML, Powerpoint, rich text, or unformatted text.

9. The method of claim 1 in which the content of the document includes at least one of the following: text, images, tables, frames, and headings.

10. The method of claim 1 in which the order in which the respective portions of the content are to be performed includes a two-dimensional layout.

11. The method of claim 1 in which the reorganization information includes an identification of a relative importance of the respective portions of the content.

12. The method of claim 11 in which the reorganization information includes an identification of a main block of text.

13. The method of claim 12 in which the analyzing includes finding an annotation inserted in the electronic document as a marker of the location of the main block of text.

14. The method of claim 1 in which the reorganization information associates with each of the portions of the content a revised order for presentation.

15. The method of claim 1 in which the reorganization information includes a hyperlink to be displayed near the beginning of the document, the hyperlink pointing to a portion of the content that appears later in the original order.

16. The method of claim 15 in which the hyperlink is included only if the location of the hyperlink in the document is separated by at least a predetermined distance from the location to which it points.

17. The method of claim 1 in which the reorganization information causes an automatic redirection from the first portion of the content to a later portion of the content when the document is opened for performance.

1 18. The method of claim 1 in which performance of the portions of the content  
2 comprises presenting the portions on a display for viewing.

1 19. The method of claim 18 in which the different order of performance enabled by  
2 the reorganization information is adapted for a display that has a more restricted  
3 performance capability than does the performance capability of the display for which the  
4 document was originally designed.

1 20. The method of claim 19 in which the more restricted display is part of a mobile  
2 phone or personal digital assistant, and the display for which the document was originally  
3 designed comprises a desktop computer monitor.

1 21. The method of claim 1 in which performance of the portions of the content  
2 comprises presenting the portions by speech synthesis.

1 22. The method of claim 1 in which analyzing includes identifying one of the portions  
2 as containing central content of the document.

1 23. The method of claim 22 in which generating includes inserting a link from near  
2 the beginning of the first portion of the content to the beginning of the central content  
3 portion.

1 24. The method of claim 22 in which generating includes moving the central content  
2 portion to near the beginning of the document.

1 25. The method of claim 22 in which generating includes altering the document so  
2 that the central content portion appears first when the document is performed.

1 26. The method of claim 1 in which analyzing includes identifying portions of the  
2 document that should not be separated in generating the reorganization information.

1 27. The method of claim 26 in which the portions that should not be separated include  
2 at least one of the following pairs: heading and text, image and caption, or paragraph and  
3 related paragraph.

1 28. The method of claim 1 in which analyzing includes identifying portions of the  
2 document that should not be moved relative to other portions of the document.

1 29. The method of claim 1 in which analyzing includes identifying portions of the  
2 document that should be moved relative to other portions in generating the reorganization  
3 information.

1 30. The method of claim 29 in which the portions that should be moved comprise  
2 images or tables.

1 31. The method of claim 1 in which analyzing includes identifying regions according  
2 to functions.

1 32. The method of claim 31 in which the functions include navigation and content.

1 33. The method of claim 1 in which the analyzing includes converting the document  
2 to a tree format.

1 34. The method of claim 1 in which the analyzing includes blocking major regions of  
2 the document.

1 35. The method of claim 1 in which the analyzing includes counting characters of  
2 text.

1 36. A method comprising  
2 at a server, receiving a request from a remote device for a portion of a document  
3 represented by serial data that contains content of the document and defines an order in  
4 which respective portions of the content are to be performed,

5 in response to the request, returning at least one and fewer than all of the portions  
6 of the content using reorganization information that enables performance of the portions  
7 in an order different from the order defined by the serial data.

1 37. The method of claim 36 also including

2 receiving other requests for portions of the content of the document different  
3 portions, and

4 in response to the requests, returning other portions of the content using the  
5 reorganization information.

1 38. A data structure stored on a medium and capable of configuring a machine to  
2 respond to requests for portions of a document that is represented by serial data that  
3 contains content of the document and defines an order in which respective portions of the  
4 content are to be performed, the data structure comprising reorganization information that  
5 enables performance of the portions in an order different from the order defined by the  
6 serial data.

1 39. The data structure of claim 38 also including the content, the data being expressed  
2 as a modified version of an original data structure that expressed the document.

1 40. The data structure of claim 39 in which the modified version includes annotations.

1 41. Apparatus comprising

2 means for receiving an electronic document represented by serial data that  
3 contains content of the document and defines an order in which respective portions of the  
4 content are to be performed,

5 means for analyzing the serial data of the electronic document, and

6 means for generating reorganization information for use in delivering the portions  
7 of the content, the reorganization information enabling performance in an order different  
8 from the order defined by the serial data.

1 42. Apparatus comprising

2 a machine configured to receive an electronic document represented by serial data  
3 that contains content of the document and defines an order in which respective portions  
4 of the content are to be performed, analyze the serial data of the electronic document, and  
5 generate reorganization information for use in delivering the portions of the content, the  
6 reorganization information enabling performance in an order different from the order  
7 defined by the serial data.